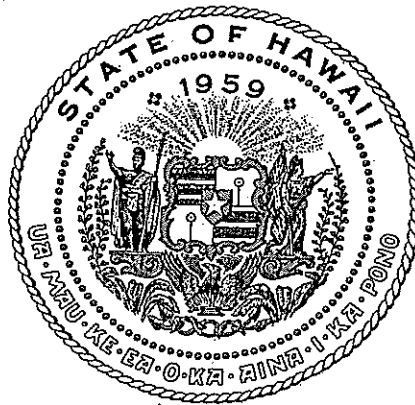


REPORT TO THE TWENTY FIRST LEGISLATURE
STATE OF HAWAII
REGULAR SESSION OF 2001

In Response to Senate Concurrent Resolution 143, House Draft 1
Section II of the Twentieth Legislature,
Regular Session of 2000, State of Hawai'i
Regarding Potential Sources of Permanent Dedicated Funding
and Staffing and Funding Needs of the
Natural Area Reserves System



Prepared by

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Honolulu, Hawai'i
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EXECUTIVE SUMMARY

The Department of Land and Natural Resources had been requested by SCR 143 HD 1, to convene a working group (Group) to identify potential sources of permanent dedicated funding for Hawaii's Natural Area Reserves System (NARS).

The NARS currently consists of 19 reserves on five islands totaling 109,165 acres. Containing examples of over 40% of Hawaii's natural ecosystems, the System represents some of the finest native habitat remaining in Hawaii. Management activities such as fencing, ongoing weed control, vegetation monitoring and endangered species recovery efforts are expensive and require long-term commitments and well-trained permanent employees.

The Group, composed of invited representatives of involved agencies and citizen organizations, met 5 times in the summer and fall. After much productive research, exchange of ideas and philosophies, they concluded:

- To meet the goals mandated for NARS, \$31 an acre or \$5 million a year for the expanded System was determined to be needed. The Group agreed that the main responsibility for funding the System rests with the Legislature. Once long-needed infrastructures, such as fences, are in place, an approximate doubling of staff was determined to be needed for maintenance.
- Nine potential permanent dedicated funding sources were identified and rated in following order of preference: the Conveyance Tax, Percentage of Capital Improvement Projects Passenger Surcharge, Direct State Appropriation with Baseline Funding, Transient Accommodation Tax and Tourism Special Fund, Income Tax Check-Off, Watershed Sustainability Fee, Hotel Bill Check-Off Contribution, and Merchandising. The Group also identified and discussed other potential sources of supplemental income for the NARS which also increase public awareness and support for the System.

The Group hopes the information in this report can be used to reverse the decline of funding to the NARS and aid the Legislature in making a long-term commitment to protecting the best examples of native ecosystems on state-managed lands at a similar level as other protected areas in the State.

INTRODUCTION

Legislative Request

The Department of Land and Natural Resources (DLNR) has been requested by Senate Concurrent Resolution 143, House Draft 1 (see APPENDIX 1) to convene a working group of representatives of involved agencies and citizen organizations), to identify potential sources of permanent dedicated funding for Hawai'i's Natural Area Reserves System (NARS), and to identify funding and staffing needs for the existing NARS, as well as an expanded System as recommended in the *Strategic Plan for Hawaii's Natural Area Reserves System* (see APPENDIX 2). DLNR is also requested to submit the working group's findings no later than 60 days prior to the convening of the Regular Session of 2001.

Process

In July 2000, DLNR invited representatives of involved agencies and citizen organizations to participate on the NARS Funding Working Group (see APPENDIX 3). The Working Group met 5 times between August 14 and October 30, 2000. Members identified and ranked 9 potential sources of permanent funding for NARS. Members also discussed additional potential sources of funding for NARS that are not permanent dedicated sources, but which could supplement permanent NARS funding, as well as raise public awareness and support for the program.

The Working Group was composed of organizations with diverse interests, which enabled the productive exchange of ideas and philosophies. This report and the findings herein do not necessarily reflect the position of or endorsement by DLNR or members of the Working Group.

BACKGROUND

Overview of the NARS

NARS was established in 1970 by the Hawai'i State Legislature to "preserve in perpetuity specific land and water areas which support communities, as relatively unmodified as possible, of the native flora and fauna, as well as geological sites, of Hawai'i" (HRS §195-1). Currently, there are 19 Reserves totaling 109,165 acres on Kaua'i, O'ahu, Moloka'i, Maui, and Hawai'i (see APPENDIX 4). NARS is 1 of 4 major programs of the Division of Forestry and Wildlife (DOFAW) (see APPENDIX 5). A 13-member NARS Commission composed of 6 appointed scientists, a

member of a hiking organization in the State, a member of a hunting organization in the State, and 5 ex-officio positions, recommends suitable areas to be included in NARS. The Commission also approves management plans, and assists in determining policy. NARS program activities are based primarily on long-term, integrated management plans, which are developed for each Reserve.

NARS protects some of the most pristine and biologically diverse ecosystems remaining in the Hawaiian islands, including coral reefs, anchialine pools, coastal sand dunes, sea cliffs, streams, lava tube caves, aeolian deserts (supported by wind-borne nutrients), grasslands, dry forests, rain forests, montane lakes and bogs, lava flows, and alpine systems. Within the present NARS, essential habitat can be found for 75% of Hawaii's native plant species and 65% of our rarest forest bird species residing there. Although NARS encompasses less than 3% of Hawai'i's land area, it represents the greatest concentration of protected biological diversity in the Nation. NARS also provides essential watershed for Hawai'i's people. All but 2 of the Reserves are on ceded land.

Threats and Management Needs

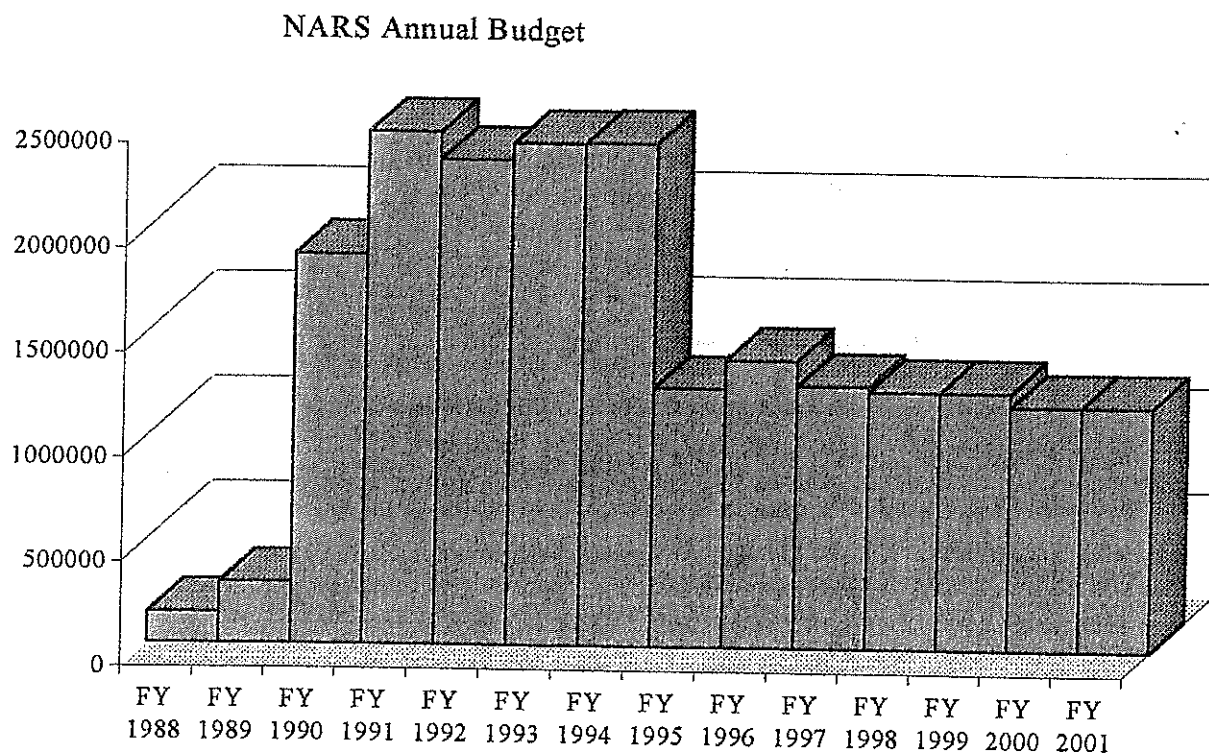
Nearly all of the Natural Area Reserves have some degree of threats that are detrimental to native Hawaiian species and ecosystems. These threats include introduced mammals such as pigs, goats, sheep, deer, rats, and mongooses; invasive weeds such as clidemia, blackberry, and guava; and fire. Management activities in the Reserves focus on eliminating or controlling these threats, directly and indirectly, and include alien species control; construction and maintenance of fences, roads, and trails; rare species protection strategies; and research. These activities are enhanced by volunteer efforts, public hunting, signage, and public education, but permanent adequate funding and staffing are needed if NARS is to ultimately succeed.

NARS Funding History

NARS program is currently funded by way of the State General Funds -- a direct appropriation from the Legislature that fluctuates yearly. There is no permanent dedicated source of funding for NARS. The Natural Area Reserve Fund, which was established to receive revenue for the Natural Area Partnership Program and the Forest Stewardship Program, does not fund NARS.

From 1970 to 1982, NARS had only 1 Reserve ('Ahihi-Kina'u), 1 employee, the Executive Secretary of the NARS Commission, a small budget, and an administrative existence under DLNR. 17 new reserves were added to the NARS between 1982-87. In 1988, NARS was placed under DOFAW. In 1990, the last reserve, Kanaio, was added to NARS. The annual operating and personnel budget for NARS peaked in 1991 at \$2.5 million, and has declined since then to \$1.17 million in Fiscal Year 2001 (see Figure 1).

Figure 1: NARS Annual Budget 1988-2001



Considering the low level of funding for NARS, the Staff has done a commendable job using innovative means to manage the Reserves, such as increasing public hunting pressure by establishing better access roads and trails; using volunteers (including hunters) to monitor changes in natural resources resulting from environmental changes, human activities, and specific management programs; and educating and utilizing the volunteer efforts of our youth through the Youth Conservation Corps (YCC). These volunteer and education programs provide an important work force for NARS and enhance public awareness and support for the Program.

Expanding NARS

Hawai'i has the greatest concentration of rare and endangered species and ecosystems in the United States and, possibly, the world. Half of the Hawaiian rain forest and nearly all of the native dry forest are gone, as are half of the birds known to occur in the Hawaiian Islands, 10% of the native flora, and hundreds of insects, land snails, and other unique Hawaiian animals. Currently, 34 taxa of Hawaiian birds, 292 Hawaiian plants species, and dozens of Hawaiian invertebrates are on the Threatened and Endangered Species list.

43% percent of Hawai'i's natural community types are protected under NARS. Another 30% are protected in various parks, preserves, and sanctuaries on state, federal, and private land, while 27% are unprotected and at risk. In 1987, the NARS Commission called for the protection of Hawai'i's critically imperiled natural communities and native ecosystems by the year 2000. Since 1987, only 1 reserve has been added to NARS. Several natural areas on state-managed land have been nominated by the NARS Commission for inclusion into the System as mandated in the originating legislation and reinforced in the *Strategic Plan* (see Appendix 2). Additional staffing and resources will be necessary to maintain the expanded System.

THE WORKING GROUP'S FINDINGS

The 1991 estimate to manage the existing NARS, based on approved management plans, was \$2.5 million (see APPENDIX 6). Given inflation and the lost management opportunities resulting from several years of underfunding, the Working Group estimated that approximately \$3.4 million in today's dollars, or \$31 per acre per year, is needed to manage the present System. The 1999 estimates by the NARS Commission to manage the nominated NARS was \$900,000, bringing the total estimated annual budget necessary to manage NARS with a conservative expansion to \$4.3 million. The Working Group, factoring in the cost of fully completing the System, set \$5 million a year as the funding need of NARS.

Currently, there is a critical shortage in funds for management, vehicles, equipment, and infrastructure, particularly fence construction and maintenance. A doubling of the current staff of 27 may be necessary to maintain and manage NARS in a manner comparable to other protected areas in the State (see Figure 2).

Figure 2: Comparison of Fiscal Year 2001 Expenditures Per Acre for Protected Area Management in Hawai'i

Landowner	Management Costs/acre	Source of Information
Ecosystem Management of O`ahu Training Lands, U.S. Army	\$271	Personal communication U.S. Army Staff
Haleakala National Park, Maui National Park Service	\$122	Strategic Plan for Haleakala National Park FY 2000-2005
Natural Area Partnership Program (NAPP)	\$66	NAPP Legislative Report 1999
Hakalau National Wildlife Refuge, Hawai'i U.S. Fish and Wildlife Service	\$56	Personal communication USFWS Staff
Natural Area Reserves System	\$11	NARS Legislative Report 1999

The \$31/acre funding, although less than other landowners, can be supplemented by a combination of the other mechanisms identified. For example, Hawaii Island NARS has developed a projected budget and operating structure if the additional funding is realized (see APPENDIX 7.)

Potential Sources of Permanent Funding

With the goal of an annual budget of \$5 million permanent funding for NARS, the Working Group identified 9 potential sources of dedicated funding for the NARS. These sources were initially identified from a variety of written and personal sources, including the *Nature Conservancy Funding Mechanism Summary* (see APPENDIX 8).

There was open discussion on each source's potential to meet the annual budget goal of \$5 million, nexus with natural area management, and feasibility, as well as examples of similar programs and degree to which they have been successful elsewhere. To give Legislators an indication of the Working Group's preferences regarding the 9 potential sources of permanent funding, the sources were ranked by the Working Group using the above criteria (see APPENDIX 9). These sources are discussed and graphically displayed below (see Figure 3):

Figure 3: Estimated Annual Revenues from Rated Sources

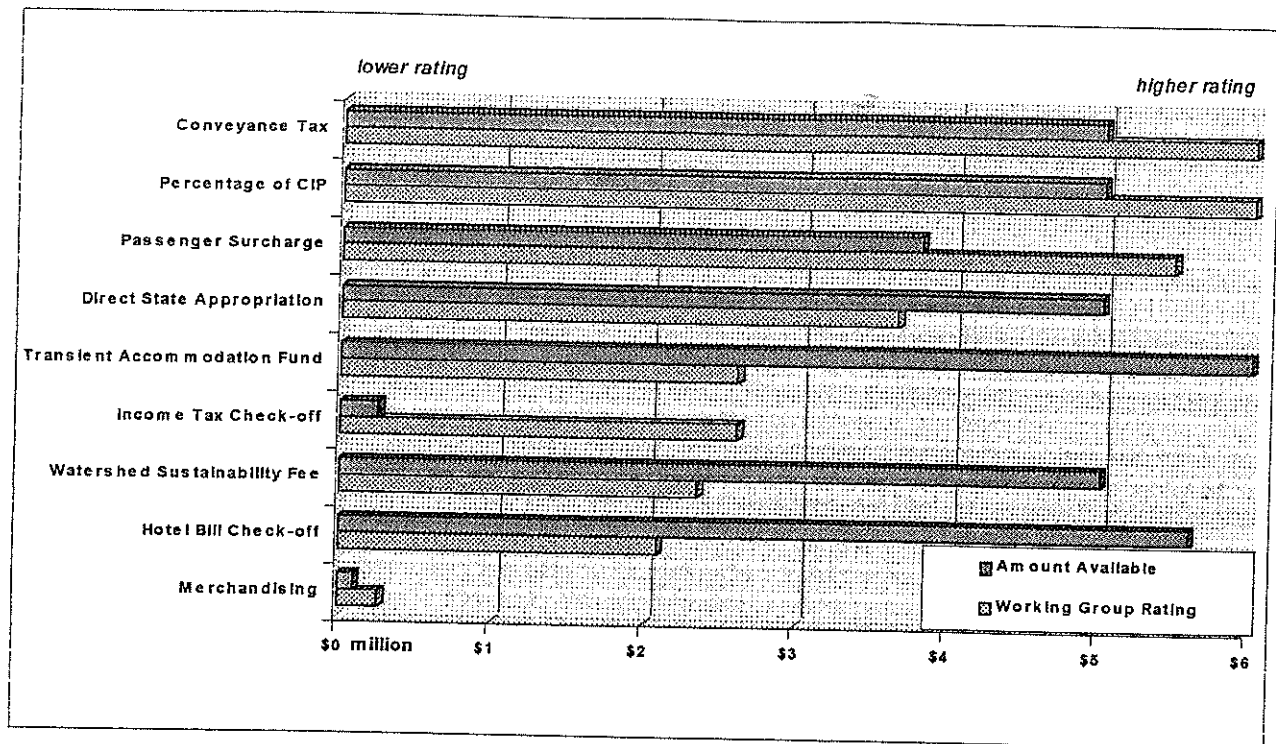


Figure 3. Estimate Millions Annual Revenues

1. **Conveyance Tax:** Since 1993, 2 successful DLNR programs have enjoyed a dedicated permanent source of state funding: the Natural Area Partnership Program (NAPP), which provides state matching funds on a 2:1 basis with private funds for the management of natural resources on private lands permanently dedicated to conservation; and the Forest Stewardship Program (FSP), which provides state matching funds on a 1:1 basis with private funds for the forestry and forest management on private lands for 10-year periods. These Programs are funded by 25% of the Conveyance Tax (HRS 247), which is levied each time real estate property is bought or sold, with revenues deposited in the Natural Area Reserve Fund.

The Conveyance Tax has an approximate revenue flow of \$10 million a year with 50%, or \$5 million, going to the State General Fund. This amount or a portion of, could be dedicated to NARS. The Legislature has already determined that this Tax is appropriate to be used for the conservation of natural resources on private lands by dedicating 25% to NAPP and FSP. The nexus is clear for use of a portion of the Conveyance Tax for NARS as

the sale, development, and improvement of real estate in Hawai'i puts additional pressure on the environment and increases the need and costs to protect natural areas.

Other states have used conveyance taxes as a source of funding for conservation programs. For example, Florida, through a similar real estate transfer tax, dedicates \$300 million a year for conservation land acquisition and management.

2. Percentage of Capital Improvement Projects (CIP): This funding mechanism is presently used by the State Foundation on Culture and the Arts to fund the Works of Art Special Fund (HRS §103-8.5). Basically, 1% of all state fund appropriations for capital improvements designated for the construction cost element -- and only for the construction or renovation of state buildings -- goes into the Works of Art Special Fund. Revenues average \$2 million per year. Obtaining 2.5% of the CIP construction and renovation budget for state buildings could generate \$5 million a year for NARS.

A percentage of CIP funding for the construction or renovation of roads, highways and other state infrastructure could also be dedicated to NARS. Many federal funded projects already have this component in their budgets.

3. Passenger Surcharge: The legality and feasibility of a passenger surcharge should be explored as a permanent source of funding for NARS. While existing federal laws may prohibit such a surcharge, the possibility of making a special case for Hawaii (and other states with tourism-based economies) should be explored. Based on an annual visitor count of 7 million, a nominal surcharge of \$.75 per visitor could generate \$5.25 million a year for NARS.

4. Direct State Appropriation with Baseline Funding: NARS is currently funded by a direct state appropriation from the General Fund via the Biennium Budget. The amount of the appropriation fluctuates from year to year and is subject to immediate spending restrictions. The NARS budget peaked at \$2.5 million in 1991, and has steadily declined to \$1.17 million in Fiscal Year 2001 (see Figure 1)

5. Transient Accommodation Tax and Tourism Special Fund: Effective January 1, 1999, the Transient Accommodation Tax (TAT) on hotel room fees increased to 7.25% (ACT 156, SLH, 1998). Of the total revenues collected, 44.8% is transferred to the Counties, 17.3% is deposited into the Convention Center Capital

Special Fund, and 37.9% is deposited into the Tourism Special Fund. (TSF). Reallocating a portion of the TAT for native resource protection is a potential source of funding for the NARS.

The TSF is also a potential source of permanent funding for NARS. However, some members of the Group were reluctant to identify the TSF as a funding source for natural resource management based on their understanding that the TSF was established to market and develop the visitor industry. Other members of the Working Group felt that TSF funds could be appropriated to manage NARS and other natural resources and attractions which help attract visitors to the Islands; maintain safe facilities and sites; and generally enhance the visitors' outdoor experience in Hawai'i.

Aside from NARS, the Working Group discussed the possibility of using TSF funds to improve visitor-oriented infrastructure, such as parks, public restrooms, trails, and interpretative signs.

6. Income Tax Check-Off: Check-off boxes could be put on state income tax return forms to allow filers to donate a portion of their tax refund to the NARS. Conservation check-offs are used in 36 states with limited success. Although not advised for land acquisition because of the low revenue generally received, the income tax check-off could generate moderate supplemental revenue for NARS.

7. Watershed Sustainability Fee: All but 2 of the Reserves are part of watersheds, and many of them are located in the primary watersheds of the State. Adding approximately \$1.40 to each water bill in Hawai'i could generate \$5 million for NARS. Native forests, including many of the Reserves, are effective watersheds in terms of both quality and quantity of water. This funding mechanism has been used in New York City to protect the upstream forests that provide the City's water supply.

8. Hotel Bill Check-Off Contribution: This mechanism would be a state-sponsored effort to obtain voluntary donations from visitors for natural resource management. The visitor would make a donation during the checkout process. This type of program has been used in Europe with limited success. However, a recent survey commissioned by the Sierra Club, Hawai'i Chapter, found that 81% of the 1,000 visitors surveyed on Maui would be willing to make a donation of \$1 a day during their visit to preserve Maui's natural areas, coastlines, and Hawaiian

cultural sites in a land trust if it were a dedicated charge to their hotel room rate for that purpose.

9. Merchandising: Texas, Los Angeles County, and the National Audubon Society, for example, have popular product lines. Third parties are licensed to market and sell items such as t-shirts, caps, patches, backpacks, calendars, note cards, etc., all of which generate significant amounts of revenues. For example, revenues generated from a line of attractive affordable products featuring Hawai'i's native species and ecosystems could be dedicated to NARS.

Other Potential Supplemental Income Sources

The Group also identified and discussed other potential sources of income for NARS. However these did not meet the criteria for permanent dedicated funding along with significant revenue generating potential. Some of these sources have the potential to increase public awareness and support for the NARS, as well as generating additional revenues.

Federal Grants: Presently DLNR receives U.S. Fish and Wildlife Service Section 6 and discretionary funds. Although these grants support conservation activities in DOWAW, they are year-to-year, project specific, and amounts can fluctuate greatly. In addition, most of these grants require State-matching funds, which may not be available without permanently dedicated funding. The USFWS feel strongly that the Legislature should support conservation programs at similar levels as some other states.

Sales Tax: The Working Group briefly discussed the possibility of dedicating a certain percentage of general sales tax, but did not rank this potential source. Arkansas and Missouri are 2 states presently using a percentage of general sales tax returns for conservation programs. This mechanism would provide a permanent dedicated flow of money.

Non-Consumptive User Fees: The National Park Service charges entry fees, which are used to manage the National Parks. For example, Haleakala National Park generates over 2 million per year from entry fees. DLNR presently charge entry fees in high use areas such as Diamond Head, a user fee for commercial use of trails, and are presently doing a feasibility study on entry fees at Kokee State Park. However, the NARS are dedicated for preservation purposes, and, although DLNR encourages public

enjoyment of the Reserves, it does not encourage public use of the Reserves at the level necessary to generate sufficient income to encourage collecting user fees.

Grants from Non-Government Organizations: These grants are generally small amounts which can fluctuate greatly from year-to-year, and they often require a state match.

Restoration Funds from Mitigative Measures: These funds, often court ordered, presently support some conservation activities by DLNR, such as oil spill cleanup. They are project-specific and are not permanent.

Trust Fund/Non-Profit 501(3)(c): The NARS presently has a funding mechanism to receive tax-exempt donations through the University of Hawaii Foundation. However, generally, donors believe their tax dollars should support government conservation agencies and prefer giving donations to non-government organizations instead.

Affinity Credit Cards: With this mechanism, a percentage of credit card user fees could go to NARS. This could be an effective public outreach tool. However, with the small population base in Hawai'i, it would not generate revenues significant enough to reach the funding goals.

Conservation License Plates: Conservation license plates would also be an effective public outreach tool, but, again, with the small population base in Hawai'i, it would not generate significant revenues.

Stumpage from Logging Leases: Some states have funneled revenues from logging leases into conservation programs. The justification for this is those making profits from logging in commercial forests should mitigate impacts to the affected adjacent natural areas.

Oxygen/CO2 Credits: The Group briefly discussed the possibility of using oxygen/carbon dioxide credits as a means to fund the NARS. This mechanism has been successfully implemented in natural area in Costa Rica.

Justification for Permanent Adequate Funding for the NARS

Funding for NARS, as with other natural resources programs in the State, has never been sufficient to meet the Legislature's various mandates to DLNR. This has been compounded by the fact,

that, in a downturn economy, NARS and other environmental programs have been vulnerable to cutbacks with annual budgets decreasing steadily to merely 44% of peak levels in 1991 (see Figure 1).

Fencing, ongoing weed control, vegetation monitoring and endangered species recovery efforts in NARS are expensive and require long-term commitments, well-trained permanent employees and dedicated funding from the Legislature.

Only 1 in every 4 acres in NARS is actively managed at this time, and of the 27 positions assigned to NARS, the equivalent of 19 are assigned to actively manage the Reserves in the field. This amounts to 1 staff person for every 5,745 acres of reserve. Furthermore, less is spent per acre in NARS than for similar areas on private and federal lands (See Figure 2).

CONCLUSIONS

NARS requires a long-term commitment of both staff and resources for operations. Permanent adequate funding for ongoing management and support for qualified personnel are absolutely essential in order for NARS to be successful. The State's commitment to support NARS rests with the Legislature. By establishing permanent dedicated funding, as has been done for similar state-private cost-sharing programs on private lands, the Legislature would be making a long-term commitment to protecting the best examples of native ecosystems on state-managed lands. Adequate dedicated funding for NARS will allow existing management projects to continue, provide the opportunity to add new reserves and implement new projects, and demonstrate the State's commitment to perpetuating Hawai'i's unique natural history and culture for future generations to know and enjoy. NARS needs your kokua.